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## **FACSIMILE COVER SHEET**

To:	Examiner Adrienne C. Johnstone	Date:	December 3, 2009
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MESSAGE: Please see the attached. Proposed amendments to the Specification.			

## \* \* \* \* \* \* \* \* \* \* \* <u>CONFIDENTIALITY NOTE</u> \* \* \* \* \* \* \* \* \*

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Please amend paragraph [0008] on page 3 as follows:

--[00081 As a result of intensively and extensively working on researches on and researching cavity resonance of a pneumatic tire, the inventors of the present invention obtained knowledge that, when a tube communicating with a cavity portion formed between the pneumatic tire and a rim is provided, a resonance frequency is split because of mutual interference between vibration of air inside the tube and vibration of air inside the cavity portion. In particular, they found out that a one-end closed tube having a length of about one fourth of a cavity resonance wavelength causes a split in resonance frequency, and elicits changes in resonance frequency which are associated with rotation, despite the length shorter than the cavity resonance wavelength. With these findings, unlike in the case of reducing eavitive cavity resonance noise simply based on a change in cross-sectional area of the closed space as in the conventional manner, cavitiy resonance noise can be effectively reduced without causing either negative influence on deformation of the tire or deterioration in rim assembling workability.--

Please amend paragraph [0011] on page 4 as follows:

--[0011] In the present invention, although it is required to provide at least one tube so as to open to the cavity portion, an effect in eavitiy cavity resonance noise reduction can be enhanced if a plurality of tubes are provided so

as to open to the cavity portion; and the opening portions of these tubes are arranged in one arbitrary location on a circumference, or in two locations facing each other across the rotational axis of the tire. At this point, it is desirable that an angle with respect to the rotational axis of the tire, which defines a range of each of the locations where the opening portions of the tubes are arranged, be—at equal to or less than 35 degrees. By thus defining a range of the angle for the locations where the opening portions of the tubes are arranged, the split in resonance frequency becomes more conspicuous.—

Please amend paragraph [0018] on page 8 as follows:

--[0018] When positions of the opening portions of the tubes 4 thus change along with rotation, the resonance frequency repeatedly changes from fb to fa, and then to fd, and furthermore, to fb. Accordingly, it becomes impossible for cavity resonance to continue, whereby cavity resonance noise can be reduced. In particular, since the resonance frequency is split into three and a split width (a difference between fa and fd) becomes large as shown in Fig. 3, noise levels at the respective resonance frequencies become smaller, whereby an improvement effect in terms of feeling becomes larger.--

Please amend paragraph [0020] on page 8 as follows:

--[0020] As shown in Figs. 4 and 5, it can be found that, when the tube length L is in a range between 55% and 110% of the reference length L0, the absolute value of the difference between resonance frequencies obtained by the split becomes sufficiently large. It can be found that, particularly when the tube length L is in a range between 85% and 105% of the reference length L0, there is a larger effect. Incidentally, if the opening portions of the tubes are closed, it becomes a factor in causing variations along a circumferential direction of the tire in cross-sectional area of the cavity portion. Referring to Fig. 5, an alternate long and short dashed line indicates measured values for a case where the resonance frequency was split based on changes in cross-sectional area which can be caused with the closed tube. From these results, it can be found that an effect in cavitiy resonance noise reduction based on the interference action from the tubes is far larger than an effect in eavitiy cavity resonance noise reduction based on the changes in cross-sectional area.--

Please amend paragraph [0027] on page 11 as follows:

--[0027] Fig. 13 shows an example of the wheel provided with the tube. In Fig. 13, the wheel 2 is provided with the rim 21 and a spork spoke portion 22, the rim 21 being fitted with bead portions of a pneumatic tire, and the spork spoke portion 22 linking the rim 21 with an unillustrated axel. Additionally, on an

outer peripheral surface of the rim 21, the one-end closed tube 4 is formed so as to extend in the circumferential direction of the rim.--

Please amend paragraph [0028] on page 11 as follows:

[0028] Fig. 14 shows another example of the wheel provided with the tube. In Fig. 14, in a portion where the rim 21 and the spork spoke portion 22 are joined to each other, the one-end closed tube 4 is formed so as to extend in the circumferential direction of the rim. This tube 4 is allowed to communicate, on the outer peripheral surface of the rim 21, with the cavity portion inside the tire.

Please amend paragraph [0029] on page 12 as follows:

--[0029] Fig. 15 shows still another example of the wheel provided with the tube. In Fig. 15, in the rim 21 and the spork spoke portion 22, the one-end closed tube 4 is formed so as to extend in a diametrical direction of the rim. This tube 4 has a folded back structure in order to secure a sufficient length thereof, and is allowed to communicate, on the outer peripheral surface of the rim 21, with the cavity portion inside the tire.--